भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDRADS

Draft for comments only Doc.: TXD 01 (28702) WC
September 2025

भारतीय मानक मसौदा

वस्त्रादि – कपड़ों की इलेक्ट्रोस्टैटिक प्रवृत्ति के मूल्यांकन के लिए परीक्षण विधियाँ
भाग 1: कोरोना चार्जिंग का उपयोग करके परीक्षण विधि

(Draft Indian Standard)

TEXTILES — TEST METHODS FOR EVALUATING THE ELECTROSTATIC PROPENSITY OF FABRICS

PART 1: TEST METHOD USING CORONA CHARGING

ICS 59.080.30

Physical Methods of Test Sectional Committee	Last date for receipt of comments
TXD 01	11 November 2025

NATIONAL FOREWORD

(Formal clauses will be added later)

This Indian Standard intended to be adopted is identical with ISO 18080-1 : 2015 'Textiles — Test methods for evaluating the electrostatic propensity of fabrics — Part 2: Test method using rotary mechanical friction' issued by the International Organization for Standardization (ISO).

Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.
b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In the standard intended to be adopted, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards which are to be substituted in their respective places are listed below along with their degree of equivalence for the editions indicated:

International Standard	*Corresponding Indian Standard*	*Degree of Equivalence*
ISO 6330, Textiles — Domestic washing and drying procedures for textile testing	IS 15370:2023, Textiles — Domestic Washing and Drying Procedures for Textile Testing (*Second Revision*)	Identical under dual numbering

The Committee has reviewed the provisions of the following International Standard referred in this intended to be adopted standard and has decided that it is acceptable for use in conjunction with this standard:

International Standard	*Title*
ISO 3175-2	Textiles — Professional care, drycleaning and wetcleaning of fabrics and garments — Part 2: Procedure for testing performance when cleaning and finishing using tetrachloroethene
ISO 3175-3	Textiles — Professional care, drycleaning and wetcleaning of fabrics and garments — Part 3: Procedure for testing performance when cleaning and finishing using hydrocarbon solvents

In reporting the result of a test or analysis made in accordance with this standard, if the final value, observed or calculated, is to be rounded off, it shall be done in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (second revision)’.

1 Scope

This part of ISO 18080 specifies a test method using corona charging with measurement of the impressed peak voltage and charge decay time on specimens of fabric or all types of composition and construction.

The test methods described may not be suitable for evaluating garments and garment materials in relation to safety of personnel and protection of electrostatic discharge sensitive devices.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

i) ISO 3175-2, Textiles — Professional care, drycleaning and wet-cleaning of fabrics and garments — Part 2: Procedure for testing performance when cleaning and finishing using tetrachloroethene
ii) ISO 3175-3, Textiles — Professional care, drycleaning and wet-cleaning of fabrics and garments — Part 3: Procedure for testing performance when cleaning and finishing using hydrocarbon solvents
iii) ISO 6330, Textiles — Domestic washing and drying procedures for textile testing

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
antistatic
property of a material that reduces its propensity to acquire electrostatic charges or allows electrostatic charges to dissipate quickly

3.2
decay time
time for the impressed voltage to decay to a percentage of the peak voltage

3.3
half decay time
HDT
time for the impressed voltage to decay to half of the peak voltage

3.4
corona discharge
electric discharge with slight luminosity produced around a current conductor, without greatly heating it, and limited to the region surrounding the conductor in which the electric field exceeds a certain value

3.5
corona charging
charging of test specimens by means of corona discharge created by a sharply pointed electrode

3.6
conductive
providing a sufficiently high conductivity so that potential differences over any parts of a material or object are not sufficiently large as to be of practical significance

Note 1 to entry: In general, a conductive material has a resistance below about 105 Ω but different standards may define different resistance ranges for this term.

3.7
conductive fibre
fibre in which conductive components are included Note 1 to entry: If conductive components are exposed at the surface, the fibre is called surface conductive fibre. If the conductive components are completely embedded in non-conductive polymer, the fibre is called core conductive fibre.

FORMAT FOR SENDING COMMENTS ON BIS DOCUMENTS

(Please use A4 size sheet of paper only and type within fields indicated. Comments on each clause/sub clause/table/fig etc. be started on a fresh box. Information in column 3 should include reasons for the comments and suggestions for modified working of the clauses when the existing text is found not acceptable. Adherence to this format facilitates Secretariat's work)

Please e-mail your comments to txd@bis.gov.in

NAME OF THE COMMENTATOR/ORGANIZATION:

DOCUMENT NO: TXD 01 (28702) WC

BIS LETTER REFERENCE NO.:

Item, clause Sub-clause no. commented upon (use separate box a fresh)	**Comments**	**Specific Proposal (Draft) clause to be added/ amended**	**Remarks**	**Technical References and Justification on which (2), (3), (4) are based**
(1)	(2)	(3)	(4)	(5)